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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,396	03/26/2004	Shih-Yuan Chang	386998050US	3290
25096	7590	12/14/2005	EXAMINER	
PERKINS COIE LLP			TON, ANABEL	
PATENT-SEA			ART UNIT	
P.O. BOX 1247			PAPER NUMBER	
SEATTLE, WA 98111-1247			2875	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/811,396

Applicant(s)

CHANG, SHIH-YUAN

Examiner

Anabel M. Ton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 1, 10 and 19 are objected to because of the following informalities:

Applicant recites the "first semi-cylinders being perpendicular to the second semi-cylinders". There is no antecedent basis for this limitation in the specification neither in the drawings nor in the specification. The specification recites "the first semi-cylinders being perpendicular to the longitudinal axis of the second semi-cylinders", which is not the same structure as applicant is claiming. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeyasu et al (6,905,228) and further in view of Katoh (5,032,960).

4. Takeyasu discloses the claimed invention except for the recitation of the transparent main body having a first and second portion having at least one first semi cylinder and the second portion having a plurality of second semi cylinders. Takeyasu discloses a main body having a first portion and a second portion opposite each other (upper and lower section of 2a), the first portion having at least one semi circular lens and the second portion having a plurality of semi circular lenses, the first semi circular lens being perpendicular to the longitudinal axis of the second semi circular lenses,

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wherein the number of first and second semi circular lenses are determined according to the LED array (as shown in figures 1 and 2, each lens corresponds to an LED). Katoh discloses a semi cylindrical lens for use in a lighting arrangement with LEDs. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the semi circular lenses of Takeyasu with the semi cylindrical lens of Katoh for each respective LED of Takeyasu, since Katoh teaches of the advantages of using a semi cylindrical lens when a converging light emission is required for a lighting application.

- With regards to the amount of semi-cylinders used in claims 2-5 and 11-14, since both Takeyasu and Katoh satisfy the limitations of using a semi cylindrical lens in a lighting array corresponding to a selected amount of LED's, and the positioning of the lenses being in a linear array, and a two dimensional array, the amount of lenses being used is obvious since it would have been obvious to one of ordinary skill in the art at the time the invention was made to select a given amount of semi cylinders in the device of Takeyasu in further view of Katoh since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Furthermore, applicant has established that the importance of using such an array of semi cylinders is only to correspond to a given amount of LED's.
- With regards to claims 6 and 15, and the positioning of the semi cylinders in a triangular geometry, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the semi-circular lenses of Takeyasu

in a triangular geometry, since it has been held by the courts that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device, and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). Furthermore, it appears that the lenses of Takeyasu at some point in the array have a triangular geometry since they are connected to each other to each correspond to an LED in a multiple LED array (col. 3 lines 40-65).

- The curvature of Katoh's lens is of a spherical curvature;
- The lenses of both Katoh and Takeyasu are formed from at least glass, PMMA, polycarbonate and acrylic resin.
- With regards to claim 10, Takeyasu discloses the claimed limitations except for the recitation of first and second portions of the light collector being semi-cylinders. Takeyasu discloses an LED array and a light collector positioned in front of the LED array (2,2a), the light collector positioned in front of said LED array, said light collector including a transparent main body having a first portion and a second portion opposite to each other and said second portion facing to said LED array, said first portion having at least one first semi circular lens and said second portion having a plurality of second semi circular lenses, said first semi-circular lens being perpendicular to the longitudinal axis of said second

semi-circular lenses', wherein the number and the respective geometric arrangement of said first semi-circular lens and said second semi-circular lenses are determined according to the LED array and said light emitting diodes correspond to said second semi-cylinders in a one-to-one basis. Katoh discloses a semi cylindrical lens for use in a lighting arrangement with LEDs. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the semi circular lenses of Takeyasu with the semi cylindrical lens of Katoh for each respective LED of Takeyasu, since Katoh teaches of the advantages of using a semi cylindrical lens when a converging light emission is required for a lighting application.

- With regards to claim 19, the recitation "a flash device" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Takeyasu et al teaches the claimed invention limitations except for the recitation of first and second portions of the light collector being semi-cylinders. Takeyasu discloses an housing having an opening (9, 5) an LED array positioned in the housing, the LED array including a plurality of LEDs and a light collector positioned in front of the LED array (2,2a),

the light collector positioned in front of said LED array, said light collector including a transparent main body having a first portion and a second portion opposite to each other and said second portion facing to said LED array, said first portion having at least one first semi circular lens and said second portion having a plurality of second semi circular lenses, said first semi-circular lens being perpendicular to the longitudinal axis of said second semi-circular lenses', wherein the number and the respective geometric arrangement of said first semi-circular lens and said second semi-circular lenses are determined according to the LED array and said light emitting diodes correspond to said second semi-cylinders in a one-to-one basis. Katoh discloses a semi cylindrical lens for use in a lighting arrangement with LEDs. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the semi circular lenses of Takeyasu with the semi cylindrical lens of Katoh for each respective LED of Takeyasu, since Katoh teaches of the advantages of using a semi cylindrical lens when a converging light emission is required for a lighting application.

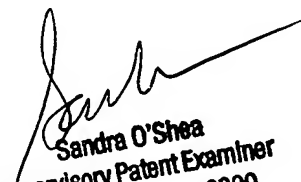
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anabel M. Ton whose telephone number is (571) 272-2382. The examiner can normally be reached on 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anabel M Ton  
Examiner  
Art Unit 2875

AMT



Sandra O'Shea  
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